Notice of Allowability	Application No.	Applicant(s)
	10/630,031	PAGE ET AL.
	Examiner	Art Unit	
	Shane M. Thomas	2186	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Amendment filed 5/11/2007*.

2. ☒ The allowed claim(s) is/are *21-35 (renumbered 1-15)*.

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None   of the:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

       1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____ .

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☒ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____ .

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or

additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR

1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the

payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with

Greg Osterloth (Reg. No. 36,232) on 7/23/2007.

The following claim of the application has been amended as follows:

31. An embedded system, comprising:

a processing unit;

a persistent component storing data between boots of the embedded system; and

a state machine stored on the persistent component and executed by the processing unit

that, in conjunction with booting of the embedded system, assumes one of two states, the two

states being,

a normal state in which applications are executed, in which a write filter intercepts writes

to protected memory locations and redirects them to unprotected memory locations, in which the

writes to the protected memory locations are not persisted to the protected memory locations,

and in which critical writes to the protected memory locations are identified and described in at

least one update file located in the unprotected memory locations; and

a change state, entered across a boot from the normal state, in which the write filter is

cleared and critical writes described in the at least one update file are then applied to the write

filter, in which the write filter causes the critical writes to be stored in a write cache, and in

which the critical writes stored in the write cache are subsequently persisted to the protected

memory locations.

The following is an examiner's statement of reasons for allowance:

Claims 21-35 are allowable over the prior art of record.

As per independent claims 21 and 30, the prior art does not specifically teach, either

alone or in combination, each limitation of the new claims. Specifically, the prior art of Page

(U.S. Patent No. 6,523,103), cited to teach the previous set of claims, fails to teach invoking a

write filter (wrfilter.sys) that incepts writes to the protected memory locations (first and second

partitions) and stores the writes in a write cache; Page teaches only intercepting and caching

these writes in the normal state (e.g. RUNBOOT state).

As per claim 31, likewise, the prior art of record does not teach the claim; the Page

reference does not specifically teach during a change state, the clearing of the write filter,

applying the writes stored in the update file to the write filter, in which the writes are stored in

the write cache (during the change state), and the writes are then persisted to protected memory

locations.

Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Shane M. Thomas whose telephone number is (571) 272-4188.

The examiner can normally be reached on M-F 8:30 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matt M. Kim can be reached on (571) 272-4182. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Shane M. Thomas

MATTHEW KIM
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100